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122.8 MEGACYCLES SEARCH AND RESCUE INCIDENT

On December 18th Pilot Talnidge Lovelady flying a Piper Pa-11C enroute from Worland, Wyoming, to Billings, Montana, alerted search and rescue by giving the international distress signal via radio to the CAA communication station at Billings.

The pilot encountered engine trouble approximately 30 miles north of the Big Horn canyon and advised Billings that he was making a forced landing. The CAA communication station alerted John Lynch, search and rescue coordinator for the Billings area, and two aircraft departed from Billings making an aerial search of the area in which the aircraft was reported down. The search was discontinued because of darkness.

Following a report by Western Airlines and an Air Force aircraft it was learned that an airplane had been spotted with flashing navigation lights on the ground a few miles from the St. Xavier beacon light. Jerry McQuaid of the Montana Aeronautics Commission and Major Stewart of the CAP together with three observers flew over the area in an Air Force twin-engine Beech which is assigned to CAP in Helena. Sheriff Roy Riley of Hardin was directed to the vicinity of the downed aircraft by walkie-talkie radio and the pilot and passenger were picked up shortly after daylight. An emergency kit was dropped to the pilot by Stewart and McQuaid during the night and radio communications were maintained with the aircraft on the ground on 122.8 megacycles.

The establishment of communications with the downed aircraft on this frequency is a typical example of the value of having a 122.8 transmitter in your airplane and a high frequency receiver.

122.8 megacycles has been designated by the Federal Communications as a frequency which may be used by pilots on air or air to ground communications.

If you do not have this crystal in your transmitter and if you do not have radio in your aircraft it is suggested that you seriously consider investing in this equipment as this is not only good insurance in an emergency but radio equipment is becoming more and more important to the operation of aircraft within the Air Defense Identification Zone and along airways. A radio equipped airplane is a valuable asset to civil defense and emergency operations.

If you desire further information on where radio equipment may be purchased or where crystals are available for 122.8 just drop a line to the office of the Montana Aeronautics Commission and we will procure the information for you.

HIGHER AND FASTER

In recent weeks the American people learned that an Air Force research plane has reached an altitude of 90,000 feet and flown faster than 1650 mph. This plane, flying faster than the speed of a rifle bullet, knifed through space at the rate of more than one mile every 2.15 seconds. An airplane flying at this speed could fly from Indianapolis to Chicago in 6 minutes. At this altitude of more than 17 miles, the earth's air is so thin that a man's blood would boil and the curvature of the earth would be clearly visible.

Some months earlier an American-built rocket reached speeds in the neighborhood of 6,000 mph and an altitude of 130,000 feet.

These two achievements of U. S. Aircraft Industry stemmed from intensive programs of research and development aimed at maintaining this nation's leadership in the air.

In the continuing conquest of the air, as represented by the modern supersonic plane and the late model missile, the engineering and production teams of the aircraft industry are playing a vital part. The millions of man hours invested in development and production of these aircraft and missiles will yield a rich return in our pursuit of national security.

JET AIRLINER RUNWAY LENGTH FACTOR

The 707 jet transport prototype has flown at altitudes higher than any other airliner in history. Boeing Airplane Co. said recently. The Seattle firm gave no figures but reported the plane has cruised "substantially higher and at greater speeds" than the 42,000 feet and 550 mph. announced previously.

Of the 92½ hours of flight time on the plane, all but two have been flown with the cabin pressurized, officials said.

During this month, Boeing expects to begin the third test period on the 707, which is now laid up for minor modifications, instrumentation, and 100-hour inspection of the four Pratt & Whitney JT-3 (J57) engines. Inspection of engine components is being carried out with the J57's still pod-mounted on the plane.

Boeing also reported the 707 was operated from a 5800 foot taxi strip paralleling the main 10,000-foot runway at Boeing Field while the main runway was under repair for two months. On most take-offs the airplane was observed leaving the ground after using less than half the available run of the taxi strip, the company said. Am. Avn. Daily.

WARNING WINTER ENGINE IDLING FAILURE

Winter time airplane accidents caused by engine stoppage due to idling failure outnumber any other type of engine failure accident. Idling failure is caused primarily by fuel starvation.

When the engine is idled while in flight, the tendency of the "prop" to "windmill" induces a higher engine RPM than that for which the carburetor has been set, resulting in a "lean" mixture. Cold weather slows down the vaporization of fuel and further "leans" the fuel-air mixture. In a prolonged glide, the engine cools off and further aggravates the condition.

Tests conducted on one popular make of light aircraft demonstrated that the carburetor air temperature could drop as much as 70 degrees in a two-minute glide, even with the carburetor hot air full on.

In the winter remember: apply carburetor heat early and prolonged glides, apply power at frequent intervals in glides, and open the throttle slowly and smoothly.

AIR-SPACE JURISDICTION

Legal Arguments Close in Cedarhurst Case

Brooklyn, N. Y. (Special)—U. S. Eastern District Judge Walter Bruchhaus indicated that the main issue to be decided in the Cedarhurst Case is "ownership" of the airspace below 1000 feet. The statement was made at the close of the arguments on the merits of the case.

In the session, the Village of Cedarhurst maintained that Congress has abdicated its responsibility by allowing the CAA Administrator and the CAB to define "navigable airspace." Emerson A. Swartz, one of the defense attorneys, accused Congress of "passing the buck" and violating the Constitution by empowering administrative agencies to make "subsequent laws." He did not, however, question the right of Congress to enact legislation which would define the navigable air space but questioned the legality of Congressional delegation of this responsibility.

John Moore, Village attorney, maintained that Congress has given freedom of transit right only to the navigable air space which he contends is above the 1000-foot minimum ceiling required for flying over congested areas. The sub-navigable air space is below 1000 feet, he stated adding that both the Civil Aeronautics Act and Federal Airport Act imply authority to condemn and purchase air space needed for take-off and landing approaches.

This session ended arguments in the case, which began more than two years ago with Cedarhurst passing the low-flying ordinance, which in turn led to the request for and granting of an injunction favoring the aviation plaintiff. No one involved in the case would hazard a guess as to when a decision would be handed down, but it was generally felt that Judge Bruchhaus would take his time because of the precedent-setting aspects of his forthcoming decision.

BOUNCE?

Safety groups say they got a valuable lesson out of a helicopter crash involving a fire tall from more than 100 feet. Half of the cockpit passengers survived. This leads engineers to believe that crash survival design in large helicopters is eminently practical and promising. If they're right, chances are excellent that power loss or damage to rotor blades during take-off or hovering at altitudes too low for autorotation need not result in loss of lives or serious injury to passengers or crew.—Avn. Age

GLASS AIRPLANE

Plastic-skinned plane is on Taylorcraft production line at Conway, Pa. Seats, doors, gas tanks, wheel pants, cowl, instrument panel are also made of fiberglass-reinforced plastic. Taylorcraft claims this construction increases speed about 12 mph. over older models. It also points to advantages in design and production and favorable strength-weight ratio. Plane is 24 feet long, has 35-ft. span, weighs about 1300 lbs. Avn. Age

NEW FLETCHER PLANE REPORTED EASY TO HANDLE

Latest model of Fletcher Aviation Corp's "Utility" plane incorporates a sliding canopy and new rudder and fin. After the first flight, Project Engineer John Thrope, who also was test pilot, reported the plane handled extremely well. The added rudder area caused no additional control pressure, because of the large area of counterbalance forward of the hinge line, he said. The new version has the two seats all of the hopper for passengers facing aft rather than toward the center to provide more leg room. The new model is being shipped to New Zealand. Am. Avn. Daily.

JET 'COPTER

Auxiliary 'copter ramjet can open for use during take-off and hovering and at other times folds away to replace 15-in. of rotor blade tip has been developed by Marquardt. Three such ramjets producing 40-lb. thrust each would about double the payload of a 'copter with 6400-lb. gross weight and 550-hp main powerplant, Marquardt claims. Avn. Age

MONTANA SCHOOL OF MINES LIBRARY NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform aviation laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

CROP SPRAYING SCHOOL FEBRUARY 25-26 GREAT FALLS, MONTANA

The Montana Aviation Trades Association is an organization of commercial flight operators in Montana affiliated with the National Aviation Trades Association.

The Montana Aviation Trades Association is sponsoring a crop spraying school at Great Falls, Montana, on Friday and Saturday, February 25th and 26th, at the Rainbow Hotel. The crop spraying school will be scheduled as a crop spraying conference held in conjunction with the annual meeting of the association. Technical people from the chemical industry together with specialists from the state college will be scheduled on the program.

The main theme and topic at the crop spraying school will be to increase safety in the use of aircraft in the application of chemicals to crop lands for the control on insects and weeds.

The insurance companies have pointed out to NATA that the fatality rate of agricultural pilots and the damage to equipment is endangering the continuation and development of the agricultural aviation industry. It has been pointed out to the trades association that one of three things will happen: They will either have government regulations; they will run out of spray pilots or the spray pilots' wives will demand that their husbands discontinue crop spraying operations. The association is interested in lowering the accident rate in both private and commercial crop spraying.

The Montana Aeronautics Commission and the State College are not sponsoring a crop spraying school for this year as it is considered that the MATA conference will adequately cover all information and topics of interest to the crop spraying pilots of Montana.

It is recommended that everyone associated with the aviation industry in Montana attend this MATA meeting in Great Falls and reservations may be made by writing the Skyway Flying Service, P. O. Box 1866, Great Falls, Montana.

The Montana Aeronautics Commission again suggests that consideration be given by the MATA to support regulations which may require crop spraying pilots to wear hard hats and use shoulder harnesses. It is also suggested that consideration be given to a regulation requiring stall warning indicators in crop spraying aircraft. It is maintained that the three requirements suggested will not be an undue burden on the operator or the pilot and if the safety of crop spraying is improved the inconveniences of the requirements will be well justified.

It is probable that MATA will give further consideration to the advisability of a CAA crop spraying rating for pilots and an operations manual for agricultural operations.

It is interesting to compare the problems of general aviation at this time to the airline operations of several years ago and it is evident that the MATA can do much to improve the technique and safety of agricultural aviation and to the stabilizing of this industry, made insecure at this time by the operational hazards of crop spraying.

It is encouraging to see the operators association recognize their responsibility and the responsibility of individual flight operators in working together to improve the safety and technique of agricultural flying.

REPORT OF THE DIRECTOR

The following items are taken from the monthly report of the director as presented to the Montana Aeronautics Commission at their regular meeting on January 12th in Helena.

Border Air Strip

The director and Jerry McQuaid flew to Scobey at the invitation of the Scobey Hangar of the Montana Pilot Association to attend a regular meeting of local people and to inspect the airstrip constructed on the border north of Scobey. Guests at the meeting included the personnel of the Air Force Radar Station at Ophir and pilots from Wolf Point and Plentywood.

Landing Strips Within National Parks Boundaries

Letters received by the commission office from Bob Monroe, president of the Montana Aviation Trades Association, requested that action be initiated to request the National Park Service to consider the establishment of landing strips within the boundaries of the national parks. The recommendation was inclosed together with letters to various groups and agencies requesting support on the recommendation.

Waivers for Defense Area Flights

Two conferences have been held with Howard Firebaugh, CAA Liaison Representative at the Great Falls Air Force Base, relative to aircraft entering and departing from Canada through the Air Defense Identification Zone. A formal request has been made to the 29th Air Division (Defense) and the Civil Aeronautics Administration for approval of issuance of waivers for aircraft not equipped with radio to clear at East Poplar, Havre and Cut Bank, flying below 4,000 feet above the terrain.

NEW TERMS FOR AIR SPACE RESTRICTED AREAS

Warning was given to all pilots by F. B. Lee, Administrator at Civil Aeronautics, U. S. Department of Commerce, that changes in the terminology describing airspace restricted areas became effective December 9.

Part 60 of the Civil Air Regulations has been amended by the CAB to eliminate the term "danger area" and "air space restricted area" and replace them with the terms "restricted area" and "prohibited area," respectively.

A restricted area is defined as: "Airspace identified by an area on the surface of the earth wherein the flight of aircraft, while not wholly prohibited, is subject to restrictions."

The revisions provide that "prohibited area" be defined as "Airspace identified by an area on the surface of the earth within which flight of aircraft is prohibited."

The change in the designations were published in the CAA Airman's Guide and on all Coast and Geodetic Survey local and sectional charts issued after December 10.

FOR SALE OR TRADE

1951 Tri-Pacer License to 11-13-55, Narco-Beechcraft LF and Loop Radios, landing lights, very clean plane. Write Russell L. Culver, Baker, Montana.

ALERT BULLETIN

Aileron Inspection: Cessna Models 170B, 180

Several cases of aileron flutter on Cessna Models 170B and 180 in which extensive damage was sustained, have recently been reported. Some of the reports indicate that an excessive accumulation of dust which had collected within the ailerons prior to flight was sufficient to unbalance the ailerons beyond their tolerable limits.

One report of ice within the ailerons caused excessive flutter immediately after take-off resulting in serious damage to the aircraft structure before the aircraft could be landed.

The aileron design of these aircraft is such that the front closure piece is the aileron spar and it has lightening holes in it permitting foreign matter such as dust, ice, snow, etc. to enter. With dust already in the aileron, water can run off the top of the wing, drop through the aileron lightening holes, and mix with the dust resulting in mud cakes in the aileron.

Owners or operators of the above model aircraft should include in the pre-flight inspection a detailed inspection of the interior of the ailerons to prevent aileron flutter due to an unbalanced condition.—Connecticut Newsletter.

COMMENT BY WEATHER BUREAU

It has been suggested that the Weather Bureau broadcast special weather warnings for the benefit of operators of light aircraft. The idea is to establish an additional safeguard for pilots of limited experience by discouraging them from attempting to fly in marginal weather conditions. On the other hand the Bureau has been criticized for giving operational advice to pilots when briefing them on the weather, the point of the criticism being that the pilot should make all operational decisions. The Bureau fully recognizes that weather suitability varies widely among pilots depending on their training, experience, and equipment. What a good weather for some may be bad for others—the possible combinations of weather-pilot-equipment factors contributing to weather suitability are very numerous.

NWA MILLION PASSENGERS

Northwest Airlines reports all-time company records in revenues and number of passengers carried in 1954 in a year-end summary released. Total commercial revenues amounted to an estimated \$63,023,000, or over 32 million more than the previous record set in 1953.

NWA President Donald W. Nyrop predicted 1955 revenues would jump to about \$70 million.

Of 1954's total revenues, \$50,900,000 were passenger revenues, compared with \$48,650,000 in 1953. The 1954 total included \$31,330,000 from first-class passenger traffic and \$19,570,000 from tourist.

During the year, NWA carried an estimated 1.2 million passengers on its domestic, Orient and Honolulu routes, an increase of about 10% over the previous record year 1953. Passenger miles were up from 851 million to 910 million. Am. Avn. Daily.

YOU BET YOUR LIFE

Every time you gamble on the weather and push ahead into marginal conditions, you bet your life! Human nature, being what it is, we are at times all prone to feel we MUST get there; that our presence is indispensable. So we push on, into doubtful conditions—and perhaps, into the side of a mountain. It becomes worse if we have passengers with us—they who have put their faith in our skill and judgment.

It's a gamble on which most of us find the stakes too high. It is a trite saying but never more true than today: that "It is better late than never." Our only indispensability is our family and friends. We owe it to them to get there—and back!—Conn. Newsletter.

FATAL ACCIDENT

Results of a CAA investigation of a fatal accident south of Minot, North Dakota, on Dec. 10, 1954, revealed that the pilot was engaged in vibrating frost off telephone lines south of the City of Minot with the propeller wash of the Piper PA-11. At the time of the accident the pilot was flying north and parallel with U. S. Highway No. 83.

The pilot apparently hit a crossarm of an intersecting REA power pole which was higher than the other utility poles along the highway. Apparently the pilot did not observe the higher pole with power lines or observed it too late.

The CAA report, which was released to the press, indicated that the aircraft appeared to be functioning properly and that both plane and pilot were properly certificated.

After striking the utility pole, the plane struck the ground on its side with the propeller cutting three deep holes in the surface, which indicated the propeller was turning when the plane hit the ground. N. Dak. Newsletter.

WORLD AIR RACE

Soviet Union, says Swedish air force publication, now has largest air force USAF follows. Next comes Great Britain and Red China. Sweden is fifth. France, however, is about to move to that place. Canada, it seems, will be sixth. Germany and Japan, if able to achieve goals set for them, will be somewhat larger air forces than Sweden, publication state. Rapid expansion is taking place in Poland in not too far distant future. Poland also will have larger air force than Sweden.

As a result, Sweden will put more emphasis into research. "Research," said Swedish defense minister "can prevent mistakes, thereby have a saving effect."—Avn. Age

FOR SALE

1947 Stinson Station Wagon, licensed to June 1955 \$1750.00. 1954 Piper Tri-Pacer, excellent condition—\$6000.00. Write C. V. Darnall, P. O. Box 127, Glasgow, Montana.

SURPLUS PROPERTY

"How to Buy Surplus Personal Property from the U. S. Army, U. S. Navy, U. S. Air Force and U. S. Marine Corps" is the title of a 26-page booklet available for 15 cents per copy at the Supt. of Documents, Washington 25 D. C. Am. Avn. Daily.



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News Letter

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